

HOW TO... Track your finances in Excel

Staying on top of your finances is daunting, but there's a function in Excel that can help you create and keep track of your invoices. Rod Lawton explains

If you're responsible for managing the accounts for a club or small business, you need some way of printing and tracking invoices. There are plenty of accounting packages that will help you do just that. However, if your operation is small, you could do it just as easily with a program you already have to hand: Excel. You could do this by creating a database of invoices with an Excel list and setting out an invoice form.

You don't really want to have to create a new worksheet for every single invoice. If you did, how would you summarise the data to see how much you had owing, for example, and how much work you did for a particular customer? Our workbook has just two worksheets. One, which we'll call 'Invoice list', contains a list of all invoices submitted. A second, 'Invoice form', is for printing invoices to be sent to customers.

The workbook uses Excel's VLOOKUP function. Type a unique invoice number into the appropriate cell on the Invoice form worksheet, and the function looks up the information for that invoice on the Invoice list worksheet.

VLOOKUP is just one of Excel's Lookup functions. Excel functions can look scary, since they often rely on technical-sounding 'arguments' and leave no room for errors. They're worth the effort, though, because they

can dramatically increase the usefulness and capabilities of your worksheets.

1 We'll start by typing in the headings we need in the first row of a blank worksheet. We're using Invoice number, Date, Company, Job, Amount, VAT, Total and Paid. This last column will be useful for adding up outstanding amounts later on. In the next row, enter the details for the first invoice. Once that's done, there's enough data to turn it into an Excel list. You do this by selecting any of these cells and choosing Data, List, Create List. Drop-down AutoFilter menus are added automatically.

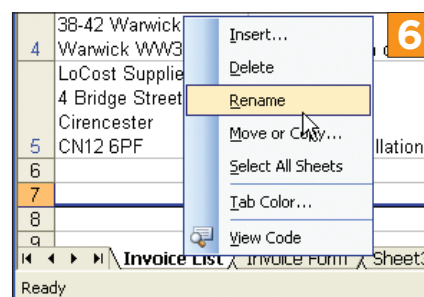
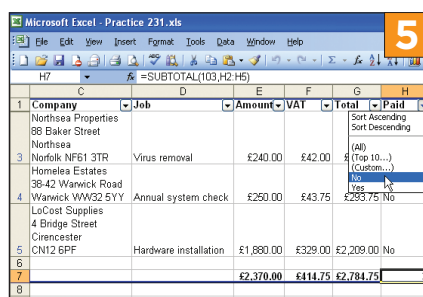
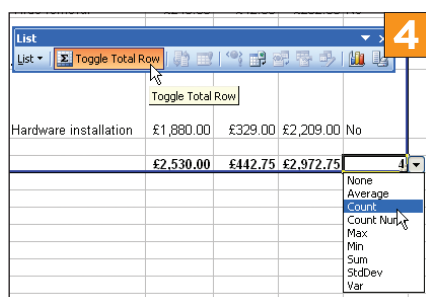
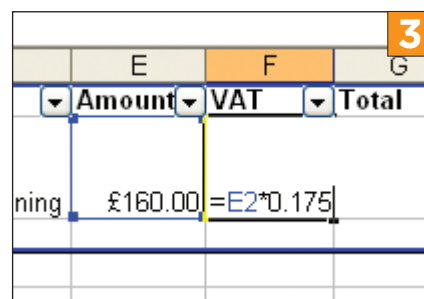
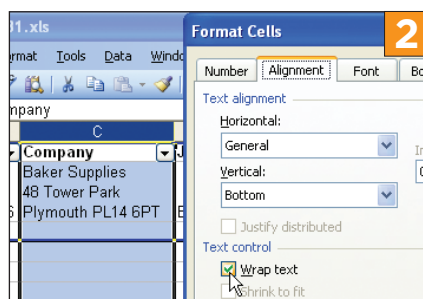
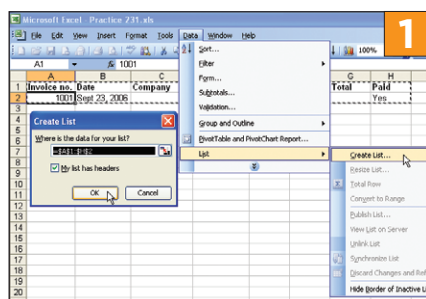
2 It would be useful to have the company name and address in the Company column. Unfortunately, you can't just type a Return in an Excel list to start a new line. To work around this problem, select the column by clicking on its letter at the top. Go to Format, Cells and select the Alignment tab. Under Text control, tick the Wrap text box. To make Excel display the extra lines, go to Format, Row, AutoFit. Now when you type into any cell in this column, the text will wrap at the column edges and the row height will increase automatically to show the extra lines. If you want to 'force' a return in a cell, type Alt-Return when you want

to start a new line. We can use this to put the company addresses underneath their names.

3 We left the VAT and the Total columns empty for our first row of data. After all, why work these out ourselves when we can get Excel to do it? The formulae are straightforward. In the VAT cell, type $=E2*0.175$. E2 is the cell containing the invoice amount, and 0.175 is the factor you need to multiply this amount by to get the standard 17.5 per cent VAT. The formula for the Total cell is simply $=E2+F2$, or the sum of the Amount and VAT cells.

Because these formulae have been set in the first row of the list, they will automatically be applied to subsequent entries in the list. When you add a new record (in the special row at the bottom with the blue asterisk at the start), these calculations are applied by Excel as soon as you enter a figure in the Amount column.

4 As the list of invoices builds up, we can start analysing it to find out how much we're owed, who's paid and who hasn't, and so on. This can be achieved easily using a Total row. When you create or work within an Excel list, Excel displays the List toolbar. This has a Toggle Total Row button. Clicking this adds a Total row to the bottom of the list, and this row will add



up any column of figures. If we add more rows, the totals update automatically because the new rows are inserted above the Total row.

Each cell in the Total row has a pop-up menu listing the functions available. By default, the SUM function is used to total up columns of figures. However, we can use the COUNT function for the Paid column; this total gives us the number of invoices submitted.

5 The Total row and the AutoFilters pop-ups in the column headings can tell us practically everything we need to know about the state of our finances, with just a couple of mouse clicks. The Total row totals only rows that are visible. So if you use the AutoFilter menu at the top of the Company column to choose a single company, the total amount invoiced for that company appears at the bottom. We can use the AutoFilter menu on this column to show the total value of all paid invoices (choose Yes from the AutoFilter menu) or, more importantly, all those that have not been paid (choose No).

When lists are filtered, the row numbers show up in blue, as does the AutoFilter button on filtered columns. To show all the rows again, use the Data, Filter, Show All command.

6 We've now created an Excel list that can track and analyse all the invoices we submit. But it's not suitable for printing individual invoices for sending to clients. For this a form is required, which we create on a separate worksheet within the same Excel workbook. By default, blank Excel workbooks are created with three worksheets. We've used the first for our invoice list, and we're going to use the second to design our invoice form.

To move from one worksheet to another, simply click the required tab at the bottom of the window. To rename a worksheet (which helps with identification), double-click on the existing tab title, or right-click and select Rename, and type in a new name.

7 Here we've done a bit of work laying out our invoice form. This is easy in Excel, and

with a few minutes' trial and error you can easily get the layout to fit your company stationery. We've increased the height of the top row to provide enough space between the top of the page and the word 'invoice' so there's room for the letterhead. Alternatively, you could paste your letterhead in and print on blank paper.

The cell for the recipient's address is B2, directly to the left of the word 'invoice'. We've adjusted its position so it fits our windowed envelopes. The cell has been formatted to a fixed height and with text wrap switched on to accommodate the multiple address lines. We want cell B2 to display the company's address automatically when we type the invoice's reference number into cell C9. With cell B2 selected, go to Insert, Function. Excel lists functions by category. The VLOOKUP function is at the bottom of the list in the Lookup & Reference category. Select it and click OK. The Function Arguments dialog box will appear.

8 Excel's functions are surrounded by technical jargon, so we'll provide the plain English explanation first. We've got a tabulated list of data. We want to look up a value in the 'Invoice no.' column, then read along the row to find the corresponding address. We can now see how this translates into the arguments of the VLOOKUP function. The first, Lookup_value, will be our invoice number. That's in cell C9 in our Invoice form worksheet. We click the button at the right of the Lookup_value box, and this shrinks the dialog box to a single line. When you've done this, click on cell C9. To expand the dialog box, click on the button on the right-hand side of the dialog box again.

9 Next, click in the Table_array line. This is the list in which we're going to look up the data. Click on the Invoice list tab, then select all the columns containing the list. This allows for expansion of the list in the future as you add more invoices. Excel is happy looking up data on different worksheets, using the worksheet name to identify it. This is another good reason for using descriptive worksheet names; it makes Excel formulae easier to understand.

10 Now we need the Col_index_num value. This is easy; it's the column number containing the data we want. In our list, the company address information is in the third column, so we can just type 3 into this box.

The final function argument, Range_lookup, is not in bold like the rest. That's because it's optional. If you leave it empty (or set to TRUE), then if Excel cannot find the exact number you ask it to look up it uses the nearest equivalent. Although that can be handy in certain circumstances, it is not what we want. If the invoice number we wanted didn't exist, it would just pick the nearest invoice, and our customers wouldn't appreciate that very much. Here we need to enter the word False. Now if Excel cannot find our invoice number it returns an error, and we know something is wrong with our records or typing. True and false are called logical arguments. They act as a kind of switch for different function modes or behaviours. Click OK.

11 Back in our Invoice form worksheet, the finished function returns an error message (N/A) in cell B2 where the looked-up address should be visible. That's because we haven't yet entered an invoice number in cell C9. When we do this, the address appears instantly. If you still get an error, it means one of two things. Either the function arguments have been entered incorrectly (in which case, you'll have to retrace Steps 8, 9 and 10) or you've entered an invoice number that isn't in your Excel list.

12 Armed with the above techniques, the rest is easy. The Date, Job, Amount, VAT and Total cells in our Invoice form layout can each be filled in using the VLOOKUP function. The only thing that's going to change is the Col_index_num value. For example, the date is in the second column, the job is in the fourth column and so on.

This is just one example of what you can do with Excel's Lookup functions. The terminology can be off-putting, and you have to think clearly and precisely about what you're doing, but it's worth the effort as you begin to understand what Excel can do. CS

